



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,711	04/22/2002	Kazumi Iijima	KKH-013	8628
7590 02/23/2007 Rader, Fishman & Grauer 1233 20th Street N W Suite 501 Washington, DC 20036			EXAMINER DESANTO, MATTHEW F	
			ART UNIT 3763	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/030,711

Applicant(s)

IIJIMA ET AL.

Examiner

Matthew F. DeSanto

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6, 7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6, 7, 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The objections to the drawings have been withdrawn upon further consideration and the reply in the remarks section of the last amendment dated 11/27/06.

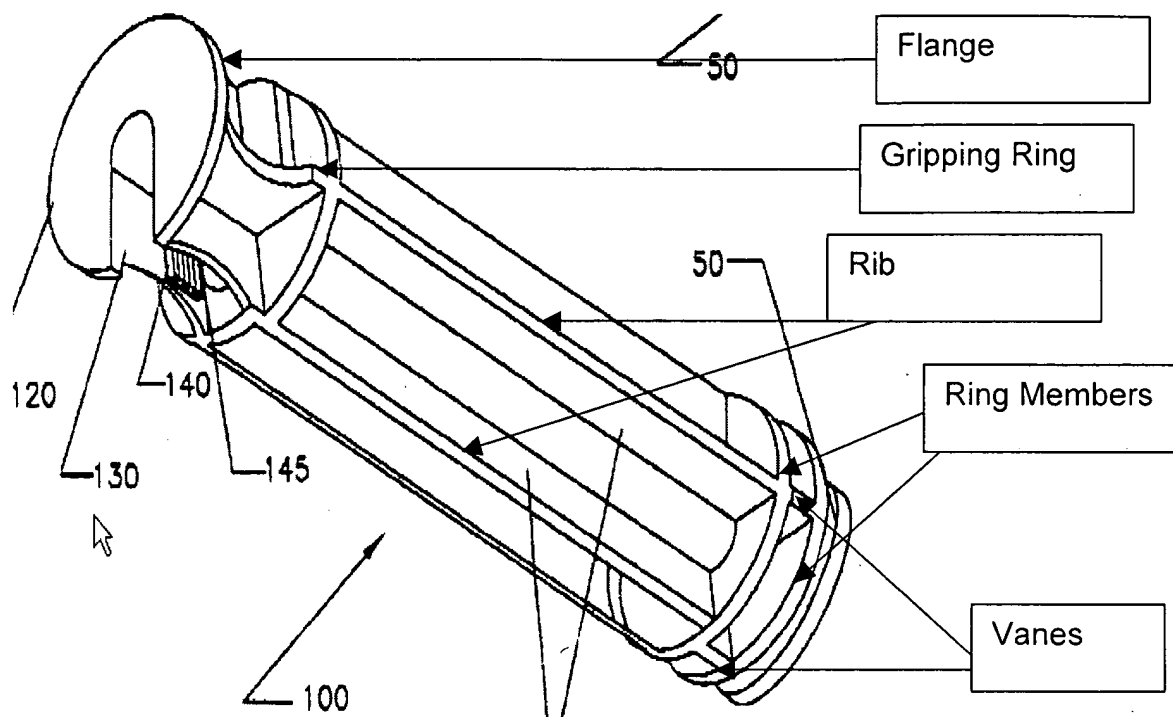
Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6, 7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschman et al. (USPN 6,042,565), and further in view of Mastuda et al. (USPN 5,688,252).

Hirschman et al. discloses a syringe plunger with a pair of rings and a plurality of vanes that abut the inner surface of the syringe barrel (see figure 1, 2A, 3D) as well as the flange portion (120) and the gripping rings, but fails to disclose having eight pieces of the vane member and the angle at which the vanes are arranged, as well as the tip of the plunger having a spiral groove that connects the gasket's spiral groove (see figures 1, 2A-2D, 3D and respective columns in reference).



Mastsuda et al. discloses a disposable syringe with a gasket for sealing the rear end of the syringe, wherein the plunger is detachably coupled to the gasket by screw means (abstract, Column 1 & 2).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to combine the device of Hirschman et al. with the teachings of Mastsuda et al. because Mastsuda et al. shows the use of a male screw formed on the plunger rod, which is screwed into the female screw of the gasket. According to the disclosure of Mastsuda et al. it has become "common practice" (Mastsuda et al. Column 1, line 60) to use this type of fastening elements to secure the gasket to the plunger rod. Mastsuda et al. further discloses the benefit of using a male screw of the plunger rod and a female screw on the gasket so as to decrease the longitudinal movement of the gasket and increase the operating efficiency (Column 3, line 66 – Column 4, line 17).

With regards the vane members it would have been obvious for one of ordinary skill in the art to make the vane members out of eight pieces or more and change the angle between them because this change in number of the vane members is a mere matter of design choice. This is a duplication of the components of the prior art device, and thus has been held in the courts as a "design consideration within the skill of the art." [See In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).] The examiner has further cited in prior office actions and rejections that there is a lack of criticality to the specific number of vanes, the space between them and the angle in which they are set. There has been no reply from the applicant as to any unexpected results or any critical feature or criticality. The specification mentions the number of vanes as one type of example and fails to provide any evidence of a critical feature or element (see page 4 of the specification), therefore the examiner has determined that it would be a mere obvious modification to change the number of vanes and arrangement of the vanes in the plunger rod.

Response to Arguments

4. Applicant's arguments with respect to claims 6, 7, 10 have been considered and are persuasive in view of Minkus et al. (USPN 5460617). Minkus et al. is withdrawn because Minkus et al. fails to teach the gripping members.

5. The 103 rejection of Hirschman et al. (USPN 6,042,565), in view of Ljungquist has been withdrawn since a new reference was found that more clearly shows the level of skill in the medical device art.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew F. DeSanto whose telephone number is 571-272-4957. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick LUCCHESI can be reached on (571) 272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3763

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Matthew DeSanto
Art Unit 3763
February 20, 2007